# VASCULAR FLORA OF THE RAGLAND HILLS AREA, FORREST AND PERRY COUNTIES, MISSISSIPPI

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ABSTRACT. Thorough field studies of the Ragland Hills area, Forrest and Perry counties, Mississippi began in 1969 and were continued until autumn 1973. The flora and ecology of several rich, mesic ravines were given special consideration. About 250-300 acres of these ravines, although disturbed by man, probably represent the largest and best remnant of the beech-magnolia forest in Mississippi. One-thousand nineteen species of vascular plants, variously distributed among 452 genera in 130 families, are recorded for the area.

The Ragland Hills, located in Forrest and Perry Counties in south Mississippi, are approximately 12 miles south-southeast of Hattiesburg (Fig. 1). It is a maturely dissected area and includes some of the most rugged terrain in south Mississippi. The area is divided by U.S. Highway 98 and is bounded by Caraway Creek on the east, the Leaf River on the north, Weldy Creek on the west, and the Camp Shelby Military Reservation on the south. Approximately 3600 acres, encompassing parts or all of fifteen sections (Sections 9, 10, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, R12W, T3N, Forrest County; Sections 18, 19, 30, R11W, T3N, Perry County) are included. All land is privately owned with about 90% of the total acreage being in Forrest County.

Most of the state of Mississippi lies within the Physiographic Province known as the Gulf Coastal Plain (Fenneman, 1938). Most of the southern one-third of the state, including Forrest and Perry counties, is in the subdivision referred to as the Longleaf Pine Region or Pine Hills (Lowe, 1921). This subdivision is named for the extensive forest of pine which is dominated by the Longleaf Pine. This region is a maturely dissected highland sloping to the southeast, with elevations ranging from approximately 500 feet to 100 feet (U.S. Geological Survey, 1956).

The Ragland Hills are a part of the north-facing slope of the divide between the Leaf River and Black Creek. They are erosional in origin having been formed by the Leaf River and its tributaries which drain the northern half of Forrest and Perry counties. Elevations range from about 300 feet along the crest of the divide to a little below 100 feet along the Leaf River (U.S. Geological Survey, 1949).

Geologically most of the area is underlain by clays of Miocene Age belonging to the Hattiesburg Clay Formation. Portions of the crest of the divide are underlain by sands and gravels of the Plio-Pleistocene Citronelle

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Formation. These formations are in part overlain by Pleistocene to Recent terrace and alluvial deposits (Mississippi Geological Society, 1969; Foster, 1941).

The soils are primarily sands and sandy loams which are rather sterile (Personal Communication, Soil Conservation Service; Vanderford, 1962). The pH ranges from 4.5 to 5.5. Deep colluvial silty clay loams and organic muck soils are associated with the swamps and poorly drained depressions.

The mean annual precipitation is between 60 and 62 inches. It is rather evenly distributed throughout the year with the autumn being the driest season. The average annual temperature is approximately  $67^{\circ}$  F with the average July temperature between  $81^{\circ}$  F and  $82^{\circ}$  F and a mean January temperature



Fig. 1. Area in which study was conducted is indicated by a circle in Forrest and Perry counties, Mississippi.

of 51° F to 52° F (McWhorter, 1962). Temperatures range from approximately 7° F to 106° F.

The effects of human activities are manifest throughout the area. A few dwellings occur but these are restricted mainly to areas adjacent to the highway. There are no dwellings in the ravines. Cutting of the forest began in the 1800's and has continued in varying degrees to the present. Currently both timber and pulpwood are being harvested. A number of access roads crisscross the area, and several sand and gravel pits occur. Recent exploration for oil has resulted in further damage to the forests.

The study area includes not only the ravines but portions of the adjacent divide crest as well as the floodplain of the Leaf River. The plant communities consequently are quite diverse and include river swamps, hardwood bottoms, savannahs, flatwoods, sandhills, bays, and upland forests of pine, mixed pine-hardwood, and hardwood. Also included are the various habitats associated with human activities such as those around dwellings, artificial lakes, in pastures and fields, and along roads and trails. Several species of aquatic plants are found in oxbow lakes, swamps, and artificial lakes and ponds.

The most floristically rich and outstanding plant community is the beechmagnolia forest associated with the mesic ravines along the north slope of the divide. Approximately 250-300 acres of the steepest ravines (N/4, Sec. 24, R12W, T3N, Forrest County; NW4 of the NW4, Sec. 19, R11W, T3N, Perry County) have escaped to some degree the destruction that has befallen the native vegetation surrounding these ravines. This is probably the largest and richest remnant of the beech-magnolia forest in Mississippi.

I have attempted to provide as nearly as possible a complete record of the vascular plants which occur in the ravines as well as those which are associated with the adjacent uplands and bottom lands. The collection of specimens and observations of the plants and the area began in 1969 and were continued until autumn 1973. These have been made during all seasons of the year. The annotated list which follows is arranged alphabetically by families and within families. In most cases the scientific names are in accord with those used in the Manual of the Vascular Plants of Texas (Correll and Johnston, 1970).

Herbarium specimens are deposited in the Herbarium of the University of North Carolina. Duplicate specimens, when available, were distributed to various other herbaria including GH, MISSA, MO, NY, SMU, US, TENN, and VDB.

The pteridophytes and seed plants of the area are distributed among 452 genera in 130 families. Of the 1019 species which were found in the area, approximately 131 (12.9%) are introduced. A number of the introduced species are of the type that persist around old homesites and probably do not reproduce themselves in this region.

The five largest families which together comprise almost half of the total number of species are: Gramineae (153), Compositae (136), Cyperaceae

# (79), Leguminosae (73), and Labiatae (27).

# ANNOTATED LIST OF THE VASCULAR FLORA OF RAGLAND HILLS

# ACANTHACEAE

Dicliptera brachiata (Pursh) Sprengel. Locally abundant along the Leaf River. Native.

Justicia ovata (Walter) Lindau. Infrequent in swampy places. Native.

Ruellia caroliniensis (Walt.) Steudel. Occasional in pinelands, dryish woods, and old fields. Native.

## ACERACEAE

Acer rubrum L. (Incl. A. rubrum var. drummondii (H. & A.) Sarg.). Frequent in a variety of woodland habitats. Native.

Acer saccharinum L. Occasional along floodplain of river. Native.

#### AIZOACEAE

Mollugo verticillata L. Common in disturbed places. Introduced.

## ALISMATACEAE

Echinodorus cordifolius (L.) Griseb. Infrequent in shallow water of ponds, lakes, and swamps. Native.

Sagittaria graminea Michx. Infrequent in shallow water of ditches, ponds, lakes, streams, and swamps. Native.

Sagittaria latifolia Willd. Locally abundant in shallow water and wet places. Native.

Sagittaria longirostrata (Micheli) J. G. Smith. Infrequent in shallow water and wet places. Native.

### AMARANTHACEAE

Alternanthera philoveroides (Martius) Griseb. Common in ponds, lakes, swamps, and sometimes in wet waste places. Introduced.

Amaranthus bybridus L. Common in cultivated and fallow fields. Native.

Amaranthus viridis L. Common in cultivated and fallow fields, occasional along roadsides. Introduced.

### AMARYLLIDACEAE

Hymenocallis occidentalis (LeConte) Kunth. Frequent in low moist woods. Native. Polianthes virginica (L.) Shinners. Infrequent in open pine and mixed woods. Native.

## ANACARDIACEAE

Rhus copallina L. Common in mixed woods, pinewoods, and old fields. Native.

Rhus glabra L. Occasional along woodland borders. Native.

Rbus radicans L. Common in woodlands, disturbed places, and along fences. Native.

Rbus toxicodendron L. Common in upland mixed woods and old fields. Native.

Rbus vernix L. Occasional or frequent in low wet places. Native,

# ANNONACEAE

Asimina partiflora (Michx.) Dunal. Occasional in usually dryish mixed woods. Native.

# APOCYNACEAE

Trachelospermum difforme (Walter) Gray. Infrequent in low woods. Native.

## AQUIFOLIACEAE

Hev ambigua (Michx.) Torr. Infrequent in upland mixed woods. Native. Hev and/ancbier M. A. Curtis. Infrequent or rare in low rich woods. Native. Hev coriace (Pursh) Chamman. Common in moist or wer low places. Native. Hev deidhar Walter. Occasional in swamps, ravines, and along streams. Native. Hev glubra (L.) Gray. Common in open pinewoods and moist places. Native. Hev longiber Chapman. Infrequent or rare in upland areas. Native. Ilex opaca Aiton, Frequent in mixed woods and ravines. Native, Ilex verticillata (L.) Gray. Occasional in low woods, Native, Ilex vomitoria Aiton. Common in low woods, pinclands, and along wood borders. Native,

#### ARACEAE

Arisaema dracontium (L.) Schott. Infrequent in ravines and low woods. Native. Arisaema triphyllum (L.) Schott. Occasional in low woods and ravines. Native. Orontium aquaticum L. Infrequent in sandy streams and open ponds. Native.

#### ARALIACEAE

Aralia spinosa L. Frequent in mixed woods and disturbed ravines. Native.

### ARISTOLLOCHIACEAE

Aristolochia serpentaria L. (Incl. A. hastata Nutt.). Occasional in mesic upland woods and upper slopes of ravines. Native.

Aristolochia tomentosa Sims. Occasional along floodplain of river. Native.

Hexastylis arifolia (Michx.) Small. Frequent in moist or dryish mixed woods and ravines. Native.

#### ASCLEPIADACEAE

Asclepias amplexicaulis Smith. Infrequent in dry mixed woods. Native.

Asclepias bumistrata Walter. Infrequent in sandy loam soils of open, dry upland woods. Native.

Asclepias obovata Elliott. Infrequent in pinewoods and along roadsides. Native.

Asclepias perennis Walter. Infrequent in shallow water of swamps. Native.

Asclepias variegata L. Infrequent in open upland woods and borders of low woods. Native. Asclepias verticillata L. Infrequent along roadsides and in open upland mixed woods. Native. Cynanchum leave (Michae) Persoon. Infrequent in open mixed woods. Native.

## BALSAMINACEAE

Impatiens capensis L. Locally abundant in wet places bordering cypress-tupelo swamps. Native.

### BETULACEAE

Alnus serrulata (Ait.) Willd. Common along streams. Native. Behala nigra L. Frequent along river floodplain. Native. Carpinus caroliniana Walter. Frequent in mesic woodlands. Native. Ostrya urigniana (Miller) K. Koch, Frequent in rich woodlands. Native.

## BIGNONIACEAE

Bignonia capreolata L. Frequent in mesic woodlands. Native. Campisis radicans (L.) Seemann. Common along roads, trails, fences, and open woods. Native. Catalpa bignonioidei Walter. Infrequent along streams, roadsides, and near dwellings. Native. Heliotrophium indicam L. Infrequent in open moist places. Introduced. Myosofis macrosperma Engelm. Infrequent at the edge of old fields. Native. Onosmodium virginiarum (L.) A. D.C. Infrequent in open pinelands. Native.

### BRASSICACEAE

Cardamine bulbosa (Schreber) BSP. Local in moist deciduous woods. Native. Cardamine birstata L. Frequent in disturbed places. Introduced. Lepidium virginicum L. Frequent in disturbed places. Native. Raphanus raphanistrum L. Infrequent in disturbed places. Introduced.

# BROMELIACEAE

Tillandsia usneoides L. Common in deciduous (rarely evergreen) trees. Native.

## BURMANNIACEAE

Apteria aphylla (Nutt.) Barnhart. Local in mesic woods. Native.

# CACTACEAE

# Opuntia drummondii Graham. Rare in sandy well-drained soil. Native.

### CALLITRICHACEAE

Callitriche terrestris Raf. Infrequent on moist sandy loam in open areas. Native.

### CAMPANULACEAE

Labelia cardinalii L. Local in wet soil bordering swamps and ponds. Native. Labelia glandulosa Walter. Infrequent in moist soil bordering open swamps. Native. Labelia puherula Michx. Frequent or infrequent in moist to dryish open places. Native.

Lobelia spicata Lam. Infrequent in open woodlands. Native.

Triodanis biflora (R. & P.) Greene. Frequent in disturbed places. Native.

Triodanis perfoliata (L.) Nievw. Frequent in disturbed places. Native.

Wablenbergia marginata (Thunberg) DC. Common in disturbed places. Introduced.

### CAPPARIDACEAE

Cleome boutteana Raf. Occasional escape from cultivation to disturbed places. Introduced.

# CAPRIFOLIACEAE

Lonicera japonica Thunberg, Occurs in a variety of habitats, sometimes overrunning native vegetation. Introduced.

Lonierra sempervireus L. Occasional in oak-pine woodlands. Native. Sambueus canadensis L. Locally abundant in open moist places. Native. Viburunu dendatum L. Frequent in alluvial woods and low woods. Native. Viburunu uitilum Ait. Infrequent in swamps and wet woods. Native. Viburunum uudum L. Locally numerous in swamps and wet woods. Native.

# CARYOPHYLLACEAE

Cerastium glomeratum Thuillier, Frequent in disturbed places. Introduced. Sagina decambers (EIL) T. & G. Frequent in disturbed places. Native. Silene antirelina L. Frequent along roadsides. Native. Silene orata Pursh. Local on upper slopes of ravines. Native. Stellaria modula (L.) Cyrill. Occasional in disturbed places. Introduced.

### CELASTRACEAE

Euonymus americanus L. Occasional in low woods. Native.

## CERATOPHYLIACEAE

Ceratophyllum demersum L. Locally abundant in swamps. Native.

### CHENOPODIACEAE

Chemopolium album L. Local in cultivated and other disturbed places. Introduced. Chemopolium ambrosioides L. Infrequent in disturbed places. Introduced, Chemopolium pumilio R. Br. Rare in disturbed places. Introduced,

### CISTACEAE

Heliauthemum carolinianum (Walter) Michx. Infrequent in open pinewoods. Native, Lecheu minor L. Occasional along pond borders and in clearings. Native, Lecheu tenuifolia Michx. Occasional in dry sandy loam soils of upland areas, Native. Lecheu tillora Ell. Frequent in clearings and upland open woods. Native.

### COMMELINACEAE

Commellina caroliniana Walter. Infrequent in disturbed places. Native. Commellina communits L. Common in disturbed places, usually near dwellings. Introduced. Commellina diffusa Burman i. Infrequent in disturbed places near dwellings. Native. Commellina virginica L. Locally numerous in rich woods. Native. Tradescantia objensis Raf. Frequent along roadsides. Native.

## COMPOSITAE

- Acanthospermum australe (Loefl.) O. Ktze, Locally numerous in sterile soil in open places. Introduced.
- Ambrosia artemisiifolia L. Occasional or sometimes abundant in cultivated fields, fallow fields, and other disturbed places. Native.
- Ambrosia trifida L. Locally abundant along floodplain of river. Native.
- Antennaria fallax Greene. Infrequent or locally abundant on upper slopes of ravines. Native. Aster adnatus Nutt. Frequent in open longleaf pinewoods. Native.
- Aster concolor L. Occasional in pine or mixed woods. Native.
- Aster dumosus L. Frequent in mixed and pinewoods, along roadsides and various disturbed places. Native,
- Aster lateriflorus (L.) Britton. Frequent or infrequent along roads, trails, and in mixed woods. Native.
- Aster linariifolius L. Occasional in dry pine or mixed woods. Native.
- Aster paludosus Ait. Infrequent in usually dry soil of open mixed woods. Native,
- Aster patens Ait. Frequent or infrequent in upland mixed woods and pinewoods. Native.
- Aster pilosus Willd. Infrequent along roads, wood borders, and edges of fields. Native.
- Aster pracaltus Poir. Infrequent in low open places. Native.
- Aster simplex Willd. Localized in low moist woods and along river floodplain. Native.
- Aster undulatus L. Infrequent in open upland mixed woods. Native.
- Baccharis halimifolia L. Frequent along roads and in low moist places. Native.
- Bidens bipinnata L. Occasional in disturbed places. Native.
- Bidens discoidea (T. & G.) Britt, Occasional in moist low ground. Native-
- Bidens frondosa L. Frequent in low woods and moist places. Native.
- Bidens milis (Michx.) Sherff. Common in wet places. Native.
- Bigelowia undata (Michx.) DC. Occasional in moist pinewoods. Native.
- Boltonia diffusa Ell. Frequent or infrequent along roads and in low usually open places. Native.
- Brintonio discoidea (Ell.) Greene. Frequent in mixed woods. Native.
- Cacalia elliottii (Harper) Shinners. Infrequent in moist woods and moist open places. Native. Cacalia lanceolata Nutt. Infrequent in low pinelands. Native.
- Chaptalia tomentosa Vent. Infrequent in open low wet places. Native.
- Chrysogonum virginianum L. Frequent in dry mixed woods and open places. Native.
- Cirsium carolinianum (Walter) Fern. & Schubert. Infrequent in open disturbed upland woods. Native.
- Cirsium horridulum Michx. Occasional along roads and in old fields. Native.
- Conyza canadensis (L.) Cronquist. Common in disturbed places. Native.
- Conyza floribunda H.B.K. Infrequent in disturbed places. Introduced.
- Coreopsis cardaminifolia (DC.) T. & G. Infrequent along roads and in other disturbed places. Native.
- Corcopsis lanceolata L. Infrequent in disturbed places. Native.
- Corcopsis major Walter. Common in dry open woods. Native.
- Coreopsis stenophylla F. E. Boynton. Rare in open disturbed places. Native.
- Corcopsis linctoria Nutt. Infrequent in various disturbed places. Native.
- Coreopsis tripteris L. Infrequent in open low ground. Native.
- Cropiilon divaricatum (Nutt.) Raf. Abundant in sandy loam or sand of open usually disturbed places. Native.
- Eclipta alba (L.) Hasskarl. Occasional at the edges of ponds, lakes, swamps, and in wet ditches. Introduced.
- Elephantopus carolinianus Willd. Frequent in mesic or dry mixed woods. Native.
- Elephantopus clatus Bertoloni. Frequent or infrequent in open pinewoods. Native.
- Elephantopus nudatus Gray. Occasional in sandy loam soils of pine and mixed woods. Native,
- Elephantopus tomentosus L. Occasional in open pine and mixed woods. Native.
- Erechtites bieracifolia (L.) Raf. Occasional in disturbed places. Native.
- Erigeron annuus (L.) Persoon. Frequent to infrequent along roads and trails. Native.
- Erigeron philadelphicus L. Infrequent in open disturbed places. Native.
- Erigeron strigosus Muhl. ex Willd. Frequent along roads, trails, and in open disturbed places. Native,
- Eupatorium album L. Infrequent in dry pine or mixed woods. Native,

- Eubatorium altissimum L. Infrequent in openings in dry mixed woods, Native,
- Eupatorium aromaticum L. Frequent in pine and mixed woods, Native,
- Eupatorium capillifolium (Lam.) Small. Common in disturbed places. Native,
- Eupatorium coclestinum L. Infrequent in wet ditches and openings in low woods. Native,
- Eupatorium compositifolium Walter. Infrequent along roads and in other disturbed places. Native
- Enpatorium fistulosum Barratt, Localized in low wet areas, Native,
- Enpatorium byssopifolium L. Frequent or infrequent in open pinewoods, dry to moist clearings, and fields. Native.
- Eupatorium leucolepis (DC.) T. & G. Open usually low pinewoods, not common. Native.
- Eupatorium perfoliatum L. Occasional or sometimes common in low woods, borders of swamps, ponds, and lakes, and in wet ditches. Native.
- Enhatorium pilosum Walter. Infrequent or rare in open pinewoods. Native,
- Enhatorium recurvans Small. Infrequent or locally numerous in moist pinewoods. Native.
- Eupatorium rotundifolium L. Common in open pine and mixed woods. Native.
- Eupatorium semiserratum DC. Frequent or infrequent in moist pine or mixed woods. Native. Eupatorium serotinum Michx. Frequent in open disturbed places. Native.
- Euthamia grammifolia (L.) Nutt. Infrequent or sometimes locally abundant in moist open places. Native.
- Euthamia leptocephala (T. & G.) Greene. Infrequent in open sandy soil. Native.
- Euthamia minor (Michx.) Greene. Infrequent or sometimes locally numerous in moist open places. Native.
- Facelis retusa (Lam.) Sch.-Bip. Infrequent in pastures and along roads and trails. Introduced.
- Gaillardia aestivalis (Walter) H. Rock. Infrequent in dry sandy loam soils of upland mixed woods. Native.
- Gnaphalium falcatum Lam. Infrequent or locally numerous along roads and in fields and pastures. Native.
- Gnaphalium helleri Britton. Infrequent in dry pinewoods. Native.
- Gnaphalium obtusifolium L. Frequent or infrequent in fields open mixed or pinewoods, and along roads and trails. Native.
- Gnaphalium pensylvanieum Willd, Frequent or infrequent in disturbed places, Native,
- Gnaphalian (subjectantian wind) request or intrequent or disturbed places, Native, Helonian amaram (Kaf.) H. Rock, Infrequent or locally numerous in pastures, fields, and along roads and trails. Native,
- Helenium flexuosum Raf. Infrequent in moist open places. Native,
- Helianthus angustifolius L. Frequent in wet or moist soil in open pinewoods, along roadside ditches, and edges of ponds and marshy areas. Native,
- Helianthus annuus L. Infrequent in disturbed places. Native.
- Helianthus atrorubens L. Infrequent in open mixed woods and at wood borders. Native,
- Helianthus beterophyllus Nutt. Infrequent in open pinewoods. Native.
- Helianthus birsutus Raf. Locally numerous or occasional in open upland mixed woods and along roads and trails. Native.
- Helianthus microcephalus T. & G. Infrequent and local in mixed woods and at wood borders. Native.
- Helianthus radula (Pursh) T. & G. Occasional in open dry pinewoods. Native.
- Heliantbus resinosus Small. Infrequent or locally numerous in open upland woodlands and at wood borders. Native,
- Helianthus strumosus L. Frequent in upland woods and along roads and trails. Native.
- Heliopsis gracilis Nutt. Infrequent in openings and at borders of upland mixed woods. Native.
- Heterotheca graminifolia (Michx.) Shinners. Frequent in sandy soils along railroads, roads, and in dry woods. Native.
- Heterotheca mariana (L.) Shinners, Infrequent in dry woods. Native,
- Heterotheca nervosa (Willd.) Shinners. Infrequent or frequent in sandy loam soils of pinewoods and mixed woods. Native.
- Heterotheca pilosa (Nurr.) Shinners. Infrequent or rare in disturbed places. Native,
- Heterotheca subavillaris (Lam.) Britt. & Rusby. Infrequent along railroads, in sandy fields and waste places. Native.
- Heterotheca trichophylla (Nutt.) Shinners. Infrequent in dry upland wooded sandhills. Native.

- Iva ciliata Willd. Locally abundant along railroad. Native.
- Krigia dandelion (L.) Nutt. Frequent or infrequent along roads. Native.

Krigia oppositifolia Raf. Frequent in disturbed places. Native.

Krigia virginica (L.) Willd. Common along roads, in fields and in lawns. Native.

Kubnia cupatorioides L. Infrequent in dry mixed woods. Native.

Lactuca canadensis L. Frequent or infrequent along roads, railroads, and trails. Native.

Lactuca floridana (L.) Gaertner. Infrequent in disturbed places. Native,

- Lactuca graminifolia Michx. Infrequent along roads in upland mixed woods, Native.
- Liatris spicata (L.) Willd. Frequent or infrequent in low moist open areas, low pinelands, and ditches. Native.
- Liatris squarrosa (L.) Michx. Frequent in sandy loam soils of upland woods. Native.

Liatris squarrulosa Michx. Infrequent or rare in dry woods. Native.

- Marsballia trinervia (Walter) Trel. ex Branner & Coville. Local in low moist places at edges of mixed woods. Native.
- Mikania scandens (L.) Willd. Frequent at borders of lakes, ponds, and swamps and in low moist places. Native.
- Pluchea camphorata (L.) DC. Frequent or infrequent in marshy places and ditches. Native,
- Pluchea foetida (L.) DC. Frequent in low wet places, edges of swamps, and in wet ditches. Native.
- Polymnia nvedalia L. Infrequent in rich woods. Native.
- Prenanthes altissima L. Infrequent in mesic ravines. Native.
- Prenanthes serpentaria Pursh. Infrequent in open mixed woodlands. Native.
- Pyrrhopappus carolinianus (Walter) DC, Common in disturbed places. Native.
- Rudbeckia birta L. Frequent along roads, trails, and in sandy woodlands. Native.
- Senecio glabellus Poiret. Abundant in low moist woodlands. Native.
- Sericocarphas bifoliatus (Walter) Porter. Frequent in open pinewoods and upland mixed woods. Native.
- Sericocarpus linifolius (L.) BSP. Frequent or infrequent in dry woodlands. Native.

Silphium gatesii Mohr. Occasional in dry, open upland mixed woods. Native.

- Solidago altissima L. Common in old fields, along roads and trails, and in low open places. Native.
- Solidago boottii Hooker. Frequent in moist sandy loam soils in mixed woods. Native.
- Solidago caesia L. Infrequent in beech-magnolia woods in ravines. Native.
- Solidago gigantea Ait. Infrequent or locally abundant in low open moist places. Native,
- Solidago odora Ait. Frequent in open dryish woods. Native.
- Solidago patula Muhl. Infrequent in low, wet open areas. Native.
- Solidago rugosa Miller. Frequent along streams, and in open wet woods and ditches. Native. Solidago ulmifolia Muhl. ex Willd. Infrequent along river floodplain. Native.
- Soliva pterosperma (Juss.) Less. Infrequent in lawns. Introduced.
- Sonchus asper (L.) Hill. Infrequent in disturbed places usually near dwellings, Introduced, Sonchus oleraceus L. Infrequent in disturbed places usually in the vicinity of dwellings. Introduced.
- Spilanthes americana (Mutis) Hieron. var. repens (Walter) A. H. Moore. Occurs in often dense growths in wet ditches, along river banks, and margins of swamps. Native.
- Taraxacum officinale Wiggers. Frequent in a variety of disturbed places. Introduced.
- Tetragonotheca belianthoides L. Infrequent in upland mixed woods and disturbed woods. Native.
- Trilisa odoratissima (Walter ex J. F. Gmelin) Cassini. Frequent in pine and mixed woods. Native.
- Verbesina helianthoides Michx. Infrequent or rare in open mixed woodlands. Native.
- Verbesina virginica L. Frequent at the borders of pastures, low woods, and old fields. Native. Verbesina walteri Shinners. Infrequent along floodplain of river. Native.
- Vernonia altissima Nutt. Infrequent in alluvial woods and low ground along roadsides. Native.
- Xanthium strumarium L. Infrequent to frequent along river banks. Introduced.
- Youngia japonica (L.) DC. Infrequent in disturbed places. Introduced,

# CONVOLVULACEAE

Bonamia patens (Desr.) Shinners. Occasional in deep sandy soils of upland areas. Native,

- Cuscula compacta Juss. Local in moist places on both deciduous woody and herbaceous plants. Native.
- Cuscuta grouovii Willd. ex R. & S. Local in moist places on woody and herbaceous plants. Native,

Dichondra carolinensis Michx. Local in lawns and pastures. Native.

Ipomoea coccinea L. Infrequent in disturbed places. Introduced.

Ipomoca hederacea Jacq. Infrequent at edges of streams and low woods and borders of fields. Introduced.

Ipomora lacunosa L. Infrequent along streams, open thickets, and roadside ditches. Native. Ipomora pandurata (L.) G. F. W. Meyer. Infrequent in disturbed places. Native,

Ipomoca quamoclit L. Infrequent in disturbed places. Introduced.

Ipomoea tricbocarpa Ell. Infrequent along roads and at wood borders. Native.

Jacquemontia tamnifolia (L.) Griseb. Frequent in cultivated ground and various other disturbed places. Native.

#### CORNACEAE

Cornus alternifolia L. f. Infrequent along streams. Native. Cornus florida L. Common in various woodland habitats. Native. Cornus stricta Lam. Infrequent in swamp forests. Native.

# CRASSULACEAE

Penthorum sedoides L. Local in wet ditches, edges of swamps, and along streams. Native.

## CUCURBITACEAE

Cayaponia grandifolia (T. & G.) Small. Infrequent or rare in rich woods. Native, Melothria pendula L. Infrequent in alluvial woods. Native.

## CUPRESSACEAE

Juniperus virginiana L. Infrequent in mixed woodlands. Native.

### CYPERACEAE

- Bulbostylis barbata (Rottboell) Clarke. Locally numerous in cultivated ground. Introduced. Bulbostylis capillaris (L.) Clarke. Frequent in dry sandy loam soils, especially in disturbed
- places. Native.

Bulbostylis ciliatifolia (Ell.) Fern. Frequent in dry sandy places. Native.

Carex abscondita Mackenzie. Common in low rich woods. Native,

- Carex albolutescens Schweinitz. Common in various moist habitats. Native.
- Carex atlantica Bailey (Incl. C. bowei Mack., C. incomperta Bickn.). Infrequent at the edges of open swamps. Native.
- Carex complanata Torr. & Hook. Frequent in moist sandy woods and ditches. Native.

Carey crebriflora Wieg, Infrequent in low rich woods, Native,

Carev debilis Michx. Infrequent or locally common along woodland streams and low moist woodlands. Native.

Carex digitalis Willd. Infrequent in rich woods. Native.

- Carey flaccosperma Dewey. Infrequent in rich wooded ravines. Native.
- Carex folliculata L. Frequent or infrequent in low wet places. Native.
- Carev frankii Kunth. Locally abundant in moist places along roads, on river floodplains, and at edges of ponds and lakes. Native.
- Carex glaucescens Ell. Infrequent in alluvial woods, wet ditches, and at edges of streams. Native.
- Carex birsutella Mackenzie. Infrequent in low woods, Native,
- Carex ignota Dewey. Infrequent or rare in low rich woods. Native.
- Carex intumescens Rudge. Frequent in low moist places. Native.
- Carex laxiflora Lam. Infrequent in beech-magnolia ravines. Native,
- Carex leavenworthii Dewey. Infrequent along roads and in pastures. Native.
- Carex leptalea Wahlenberg. Frequent in organic muck in low wet woods. Native,
- Carex louisianica Bailey. Infrequent in low woods. Native.
- Carex lurida Wahlenberg, Frequent in various moist places. Native,
- Carex mublenbergii Schkuhr. Infrequent in sandy woods. Native.
- Carev nigro-marginata Schweinitz. Infrequent in beech-magnolia forest in ravines. Native,

Carex oblita Steudel. Infrequent in wet woods and along streams. Native.

Carex oligocarpa Schkuhr, Infrequent in rich woods, Native.

Carex picta Steudel. Occurs in colonies on the upper slopes of ravines. Native.

Carex reniformis (Bailey) Small. Infrequent or rare in open moist places. Native.

Carex striatula Michx. Occasional in rich woodlands. Native.

Carex styloflexa Buckley. Infrequent in rich woodlands. Native.

Carex tenax Chapman. Locally frequent in wooded sandhills. Native.

Carex triangularis Boeckler. Infrequent or rare in low woodlands. Native.

Carex venusta Dewey. Infrequent in wet woods and along streams. Native.

Carex willdenowii Schkuhr, Infrequent in low rich woods. Native.

Cyperus compressus L. Frequent or infrequent along roads and in fields. Native.

Cyperus engelmannii Steudel. Infrequent in wet ditches and on borders of ponds. Native.

Cyperus esculentus L. Locally abundant in sandy fields. Native.

Cyperus filiculmis Vahl. Infrequent in dry sandy soils. Native.

Cyperus globulosus Aublet. Frequent in disturbed places. Native.

Cyperns haspan L. Frequent in wet ditches at edges of ponds and swamps. Native.

Cyperus iria L. Occasional in wet cultivated ground and depressions. Introduced.

Cyperus orularis (Michx.) Torr. Infrequent along roads, trails, and in dry woods and fields. Native.

Cyperus plukenetii Fern. Infrequent in dry woods and sandy upland woodlands. Native,

Cyperus pseudovegetus Steudel. Locally frequent in moist places. Native.

Cyperus retrorsus Chapman. Infrequent or locally numerous in sandy low grounds. Native.

Cyperus rotundus L. Locally common in lawns, sandy fields and along roads. Introduced. Cyperus sesquiflorus (Torr.) Mattfield & Kükenthal. Locally abundant in moist sandy loam

soils about ponds, lakes, and in ditches. Native.

Cyperus strigosus L. Frequent or infrequent in various moist disturbed places, and at borders of ponds and swamps. Native.

Cyperus tenuifolius (Steudel) Dandy. Infrequent in moist soil. Native.

Cyperus virens Michx. Locally frequent in various moist or wet places. Native.

Eleocharis microcarpa Torr. Occurs at the borders of ponds and lakes, and in water forming dense mats of attenuated stems. Native.

Eleocharis obtusa (Willd.) Schultes. Locally abundant in moist sandy places. Native.

Eleocharis tortilis (Link) Schultes. Locally abundant in wet soil in open deciduous woods. Native.

Eleocharis tuberculosa (Michx.) R. & S. Locally frequent in moist to wet sandy loam soils. Native.

Fimbristylis autumnalis (L.) R. & S. Locally numerous in open disturbed sandy loam soils. Native.

Fimbristylis miliacea (L.) Vahl. Infrequent in cultivated ground and at borders of ponds and lakes. Introduced.

Fimbristylis puberula (Michx.) Vahl. Frequent or infrequent in open pinewoods, low grounds, and along roads. Native.

Fuirena squarrosa Michx. Local in wet pinelands, moist sandy soil and swamps. Native.

Rhynchospora caduca Ell. Frequent in low sandy woods, swamps, and savannahs. Native.

Rbynchospora cephalantha Gray var. pleiocephala Fern. & Gale. Locally numerous in low wet pinewoods. Native.

Rhynchospora compressa Carey. Local in low pinewoods. Native.

Rbynchospora corniculata (Lam.) Gray. Locally abundant in ditches, swamps, and low wet places. Native.

Rbynchospora elliottii A. Dietr. Often abundant in low ground, ditches, and around ponds. Native.

Rbynchospora globularis (Chapman) Small. Common in open moist sandy places low pinewoods, and ditches. Native.

Rbynchospora globularis (Chapm.) Small var. recognita Gale. Frequent in open moist sandy places. Native.

Rbynchospora glomerata (L.) Vahl. Local in wet ditches and edges of ponds. Native.

Rbynchospora gracilenta Gray. Infrequent to frequent in low pinclands. Native.

Rhynchospora grayi Kunth. Scattered in deep sand of upland mixed woods. Native.

Rbynchospora inexpansa (Michx.) Vahl. Abundant in sandy loam soils of low pinewoods and along roads. Native.

Rhynchospora miliacea (Lam.) Gray. Infrequent or rare in swamp forests. Native.

Rbynebospora mixta Britt. ex Small. Locally numerous in low pinewoods and swamp forests. Native,

Rbynchospora perplexa Britt. ex Small. Infrequent in low pinelands and swamps. Native.

Rbynchospora rariflora (Michx.) Ell. Locally numerous in low pinewoods and boggy places. Native,

Scirpus cyperinus var. rubricosus (Fern.) Gilly. Locally abundant in shallow water of swamps, ponds, and in ditches. Native.

Scirpus Koilolepis (Steudel) Gleason. Local in moist sandy open places, frequently in cultivated ground. Native.

Scleria ciliata Michx. Locally numerous in pinelands and dry mixed woods. Native,

Scleria flaccida Steudel. Locally abundant in open wet woods. Native.

Scleria oligantha Michx. Frequent in moist sandy loam of woods and clearings, Native,

- Scleria panciflora Muhl. ex Willd. Infrequent or locally numerous in moist sandy loam of pinewoods, mixed woods, and in clearings. Native.
- Scleria triglomerata Michx. Locally abundant in moist to dry sandy loams of open woods and clearings. Native,

## CYRILLACEAE

Cyrilla racemiflora L. Frequent at the edges of open swamps, in low pinelands, ditches, and alluvial woods. Native.

### DIOSCOREACEAE

Dioscorea quaternata (Walt.) J. F. Gmel. Scattered in moist rich woods of ravines. Native. Dioscorea villosa L. Scattered in moist rich woods of ravines. Native.

## EBENACEAE

Diospyros virginiana L. Frequent in woodlands and fields. Native.

# ERICACEAE

Epigaea repeas L. Rare in dry sandy loam soil of pine-oak-hickory woods. Native,

Gaylassacia dumosa (Andrz.) T. & G. Occasional in moist to dry pinewoods and clearings. Native.

Kalmia latifolia L. Frequent in beech-magnolia forest in ravines. Native,

Leucothoe avillaris (Lam.) D. Don. Local in beech-magnolia forest of ravines and along streams and swamp forests. Native.

Lencothoe racemosa (L.) Gray. Infrequent in low woods. Native.

Lyonia ligastrina (L.) DC. Infrequent in low moist woods. Native.

Lyonia litcida (Lam.) K. Koch. Infrequent or locally numerous in low wet woods or in shallow swamps. Native.

Oxydendrum arboreum (L.) DC. Occasional or frequent in drier portions of ravines and upland mixed woods. Native.

Rhododendron canescens (Michx.) Sweet. Infrequent in low mixed woods. Native.

Vaccinium arboreum Marshall. Locally abundant in dry open woods. Native.

Vaccinium darrowii Camp. Frequent in pinelands and dry open woods. Native,

Vaccinium elliottii Chapman. Frequent or infrequent in alluvial woods, swampy places, and ravines. Native.

Vaccinium stamineum L. Frequent in mixed woodlands, less frequent in pinelands and ravines. Native.

Vaccininm virgatum Ait. Infrequent in open mixed woods. Native,

# ERIOCAULACEAE

Lachnocaulon anceps (Walter) Morong. Localized in ditches and low pinelands. Native.

### EUPHORBIACEAE

- Acalypha gracilens Gray. Frequent or abundant locally in disturbed places. Native.
- Acadypha rhomboidea Raf. Infrequent along roads, trails, borders of fields and woods, and around dwellings. Native.

Acalypba virginica L. Infrequent in disturbed places. Native,

Alcurites fordii Hemsley. Infrequent escape from cultivation to usually disturbed habitats. Introduced.

Chidoscolus stimulosus (Michx.) Engelm. & Gray. Occasional in dry upland woods. Native. Croton capitatus Michx. Common in sandy fields and various other disturbed places. Native, Croton glandulosus L. var. septentrionalis Muell. Arg. Frequent along roads, in fallow fields, and other disturbed habitats. Native,

Crotonopsis elliptica Willd. Locally numerous in open sandy places. Native.

Eußborbia corollata L. Frequent in dry woods. Native. Eußborbia maculata L. (E. sußina Raf.) Frequent in open disturbed places, especially cultivated ground. Native.

Euphorbia nutans Lag. (E. preslii Guss.) Common in various disturbed habitats, especially cultivated fields, Native.

Phyllanthus caroliniensis Walter. Infrequent or locally numerous, usually in disturbed places such as fields. Native.

Phyllanthus urinaria L. Locally abundant in disturbed areas. Introduced,

Sebastiania fruticosa (Bartr.) Fern. Frequent in alluvial woods, at borders of swamps, and occasionally in ravines. Native.

Tragia smallii Shinners. Frequent in dry deep sand of sparsely wooded upland areas. Native. Tragia urens L. Local in dry deep sand of sparsely wooded sandhills. Native.

Tragia urticifolia Michx. Infrequent or rare at the edges of upland mixed woods. Native,

### FAGACEAE

Castanea alnifolia Nutt, var. floridana Sargent, Infrequent in upland mixed woods, Native, Castanea pumila (L.) Mill. var. ashei Sudw. Infrequent in upland mixed woods. Native. Fagus grandifolia Ehrhart. Common in ravines and low moist woods. Native.

Onercus alba L. Frequent in moist or somewhat dry woodlands, Native,

Ouercus austrina Small, Rare on banks of river. Native,

Ouercus coccinea Muench. Occasional in upland mixed woods. Native.

Quercus falcata Michx. Common in dry woodlands. Native,

Ouercus bemisphaerica Bartram. Frequent in usually dryish woodlands. Native.

Querens incana Bartram. Frequent in wooded sandhills. Native.

Ouercus lacvis Walter. Frequent in wooded sandhills. Native.

Ouercus laurifolia Michx. Infrequent in low moist woods or wet depressions. Native,

Ouercus lyrata Walter. Infrequent in moist woods along streams, or in wet depressions, Native.

Ouercus margaretta Ashe. Frequent in wooded sandhills and open mixed woods. Native, Ouercus marilandica Muenchh. Frequent in dry upland woods. Native.

Ouercus michauxii Nuttall. Occasional in ravines and low rich woods. Native,

Ouercus nigra L. Frequent in alluvial woods, ravines and along streams, Native,

Ouercus pagoda Raf. Occasional in ravines and low woods. Native.

Quercus phellos L. Occasional in low moist ground. Native.

Quercus shumardii Buckley. Infrequent in ravines and low woods. Native,

Quercus stellata Wang. Frequent in upland mixed woods. Native. Ouercus veluting Lam. Infrequent in upland mixed woods, Native,

# GENTIANACEAE

Gentiana saponaria L. Infrequent or rare in recently cleared and burned low woods. Native. Sabatia augularis (L.) Pursh. Frequent in low places along roads and in low open woods. Native.

Sabatia brachiata Ell. Infrequent in moist ground of open pinelands and along roadways. Native.

Sabatia campanulata (L.) Torrey. Infrequent in open wet places. Native.

## GERANIACEAE

Geranium carolinianum L. Frequent in disturbed places, especially roadsides. Native,

# GRAMINEAE

Agrostis elliottiana Schultes. Occasional in upland disturbed open places. Native.

Agrostis byemalis (Walter) BSP, Common along roads and trails and in fields, Native,

Agrostis percunans (Walter) Tuckerman. Frequent in old fields, openings in mixed woods, and along roads and trails. Native,

Alopecurus carolinianus Walter. Localized in moist or wet open places. Native.

- Andropogou elliottii Chapman, Frequent in rather dry open woods. Native,
- Andropogon gerardii Vitman. Infrequent in open dry places. Native.
- Andropogon glomeratus (Walter) BSP. Locally abundant in low open moist areas. Native.
- Andropogon ternarius Michx. Frequent in dry open woods. Native.
- Andropogon virginicus L. Common in open woods, old fields and pastures, and along roads and trails. Native.
- Anthacnantia villosa (Michx.) Beauv. Infrequent in open dry pinewoods and savannahs. Native.
- Aristida affinis (Schultes) Kunth, Infrequent in low open pinewoods. Native.
- Aristida dichotoma Michx. Common in dry open places. Native.
- Aristida lanosa Muhl. ex Ell. Frequent or infrequent in dry sandy loam soils. Native.
- Aristida longespica Poiret. Frequent in open, sandy places. Native.
- Aristida oligantha Michx. Frequent in open, dry places in sandy loam soils. Native.
- Aristida purpurasceus Poiret. Frequent in usually dry soil in open pine and mixed woods, open ground, and at wood borders. Native.
- Aristida simpliciflora Chapman. Rare in open, dry upland woods. Native.
- Aristida virgata Trinius. Localized in open, moist sandy places. Native.
- Arundinaria grgantea (Walter) Muhl. Frequent along streams, edges of swamps, and in low woods. Native.
- Arundinatia fecta (Walter) Muhl. Infrequent in boggy, open pinewoods. Native.
- Avena sativa L. Occasional escape from cultivation to roadsides. Introduced.
- Axonopus affinis Chase. Common in open woods, along roads and trails, and in various other disturbed places. Native,
- Brachiaria platyphylla (Griseb.) Nash. Frequent in disturbed sandy soils, especially cultivated ground, Native.
- Briza minor L. Common along roads and in various other disturbed areas. Introduced,
- Bromus commutatus Schrad. Occasional or localized along roads, Introduced.
- Bromus japouicus Thunberg. Infrequent along roads. Introduced.
- Bromus unioloides (Willd.) H. B. K. Occasional or locally abundant along roads. Introduced.
- Cenchrus longispinus (Hackel) Fern. Locally numerous or scattered in open, dry sandy places. Native.
- Chavmanthium latifolium (Michx.) Yates. Occasional in low woods and along streams. Native.
- Chasmanthium laxum (L.) Yates. Occasional in open moist woods. Native.
- Chasmanthinm sessiliflorum (Poir.) Yates. Frequent or infrequent in deciduous woods. Native.
- Cteninus aromaticum (Walter) Wood. Occasional in open pinewoods. Native.
- Cynodon dactylon (L.) Persoon. Common in various disturbed places. Introduced,
- Dactyloctenium acgyptium (L.) Beauv. Locally abundant in cultivated ground. Introduced. Danthonia sericea Nutt. Frequent or infrequent in dry, open woods. Native.
- Digitaria filiformis (L.) Koeler. Occasional or locally abundant in sandy soil along roads, railways, and other open places. Native.
- Digitaria ischaemum (Schreber) Schreber. Frequent in open disturbed areas. Introduced. Digitaria sanguinalis (L.) Scopoli. Common along trails, roads, and in fields. Introduced.
- Digitaria villosa (Walter) Pers. Occasional in sandy soils in open disturbed places. Native.

Digitaria violascens Link. Occasional in sandy soils in open disturbed places. Native.

- Echinochloa crusgalli (L.) Beauv. Occasional or locally abundant in wet places and fields.
- Introduced.
- Elensine indica (L.) Gaertner. Common along roads and in fields. Introduced.
- Elymus virginicus L. Occasional or locally abundant in moist woods and ditches. Native,
- Eragrostis amabilis (L.) Wight & Arnott ex Nees, Infrequent in pastures, Introduced,
- Eragrostis cilianensis (All.) Lutati. Infrequent in open disturbed places. Introduced.
- Eragrostis ciliaris (L.) R. Br. Infrequent in pastures. Introduced.
- Eragrostis glomerata (Walt.) L. H. Dewey, Occasional in wet sand or mud along rivers. Native.
- Eragrostis birsuta (Michx.) Nees. Occasional along roads, trails, and in open woods. Native. Eragrostis oxylepis (Torr.) Torr. Common in sandy soil in open areas. Native.
- Eragrostis pilosa (L.) Beaux. Frequent or infrequent along roads and in open ground, Introduced.

Eragrostis refracta (Muhl.) Scribner, Frequent in open woods and various sandy soils. Native.

Eragrostis spectabilis (Pursh) Steudel. Frequent along trails, roads, and other open areas. Native.

Erianthus alobecuroides (L.) Ell. Locally abundant in open moist places. Native,

Erianthus brevibarbis Michx, Localized in open low places. Native,

Erianthus contortus Baldwin ex Ell. Locally abundant in low woods, ditches, and other moist areas. Native.

Erianthus giganteus (Walter) Muhl. Locally abundant in open moist places. Native, Erianthus strictus Baldwin. Abundant in open wet grounds. Native.

Festuca elatior L. (Incl. F. arundinacea Scribn.) Infrequent along roads. Introduced,

Gymnopogon ambiguus (Michx.) BSP. Occasional in open dry woods. Native,

Gymnopogon brevifolins Trinius. Infrequent in open pine and mixed woods. Native.

Hordeum pusillum Nutt. Common in open disturbed habitats. Native.

Hydrochloa caroliniensis Beauv. Localized in mud and shallow water of ponds and lakes. Native.

Imperata brasiliensis Trin. Locally abundant in open disturbed places, principally along roads. Introduced.

Leersia lenticularis Michx. Frequent or infrequent at the borders of swamps, lakes, and in ditches. Native.

Leersia oryzoides (L.) Swartz. Frequent or abundant in mud and shallow water of swamps, ponds, and ditches. Native.

Leersia virginica Willd. Frequent in moist woods and open moist places, Native,

Lolium perenne L. (Incl. L. multiflorum Lam.) Frequent along roads. Introduced.

Manisuris rugosa (Nutt.) Kuntze. Infrequent in open moist pinewoods. Native.

Melica mutica Walter. Infrequent in upland mixed woods. Native.

Mublenbergia expansa (DC.) Trinius. Common in pine-woodlands. Native. Mublenbergia schreberi J. F. Gmelin, Locally abundant in open disturbed areas. Native.

Oplismenus setarius (Lam.) R. & S. Frequent in moist woods. Native.

Panicum aciculare Desv. Common in open sandy places and open pinewoods. Native.

Panicum anceps Michx. Frequent along roads, trails, at the edges of fields, and in ditches. Native.

Panicum anceps var. rbizomatum (Hitch, & Chase) Fern, Infrequent in moist pinewoods, Native.

Panicum angustifolium Ell. Frequent in open dry woodlands. Native.

Panicum boscii Poiret. Occasional in dry woods. Native. Panicum commutatum Schultes (Incl. P. joorii Vasey). Frequent in low woods, mixed woods, and at wood borders, Native,

Panicum commutatum var. ashei (Pearson) Fern. Occasional in dry woods. Native.

Panicum curtifolium Nash. Infrequent in open moist places. Native.

Panicum depauperatum Muhl. Infrequent in dry woods. Native.

Panicum dichotomiflorum Michx. Frequent in various open moist places and low woods. Native.

Panicum diebotomum L. (Incl. P. barbulatum Michx., P. nitidum Lam., P. mattamuskeetense Ashe, P. roanokense Ashe, P. microcarpon Muhl., P. yadkinense Ashe, P. lucidum Ashe). Frequent in mesic and mixed woods and various open areas. Native,

Panicum ensifolium Baldw. ex Ell. Occasional in open moist places. Native.

Panicum gymnocarpon Ell. Locally abundant in mud and shallow water in cypress-tupelo swamps and lakes. Native,

Panicum hians Ell. Frequent or infrequent in moist open places. Native.

Panicum lanuginosum Ell. Frequent in open dryish woods, fields, and along roads and trails. Native.

Panicum laxiflorum Lam. Frequent in open mesic woods. Native,

Panicum lindbeimeri Nash. Frequent in usually moist open woods and along roads and trails. Native

Panicum longifolium Torr. Frequent in moist open areas and savannahs. Native,

Panicum mutabile Scribn, & Smith, Occasional in dry mixed woods, Native,

Panicum oligosanthes Schultes. Occasional in open dry areas and in upland mixed woods. Native.

Panicum polyanthes Schultes. Infrequent in moist openings, Native,

- Panicum ramosum L. Infrequent or rare in disturbed places. Introduced.
- Panicum raveuelii Scribn. & Merr. Infrequent in open dry woods. Native.
- Panicum rigidulum Nees. (P. agrostoides Sprengel). Common in moist or wet usually open places. Native.
- Panieum scabrinsculum Ell. Common in marshy places, along streams, at edges of lakes and ponds, and in ditches. Native.
- Panicum scabrinsculum var. cryptantbum (Ashe) Gleason. Common in low wet open places. Native.
- Panicum scoparium Lam. Occasional or abundant in moist open habitats. Native.
- Panicum sphaerocarpon Ell. Frequent along roads, trails, and various other open dry or moist places. Native.
- Panicum stipitatum Nash. Infrequent at the edges of lakes, ponds, swamps, and in ditches. Native.
- Panicum strigosum Muhl. Infrequent in open moist ground. Native.
- Panieum tenue Muhl. (Incl. P. albomarginatum Nash, P. trifolium Nash, P. flatovirens Nash). Common in low, moist ground in open areas. Native.
- Panicum texanum Buckl. Rare along roads. Introduced.
- Panicum verrucosum Muhl. Occasional or locally abundant in open moist places. Native,
- Panicum villosissimum Nash (Incl. P. pseudopubescens Nash). Frequent in open dry woods and along wood borders. Native.
- Panicum virgatum L. Frequent or locally abundant in open moist ground. Native,
- Paspalum boscianum Flugge. Infrequent in open usually wet areas. Native,
- Paspalum ciliatifolium Muhl, Occasional in disturbed places, Native,
- Paspalum dilatatum Poir. Common along roads, trails, and in fields. Introduced.
- Paspalum floridanum Michx. Occasional in open areas. Native.
- Paspalnm fluitans (Ell.) Kunth. Infrequent in mud or floating in water. Native.
- Paspalnm lacve Michx. (Incl. P. longipilum Nash, P. circulare Nash). Frequent in open places such as fields, along roads and trails. Native.
- Paspalum notatum Flugge. Common along roads, trails, and in fields and pastures. Introduced. Paspalum plicatulum Michx, Infrequent in open moist ground. Native.
- Paspalum praecov Walt. (Incl. P. lentiferum Lam.). Infrequent in moist open pinewoods. Native.
- Paspalam setacenm Michx. (Incl. P. pubescens Muhl., P. debile Michx., P. stramineum Nash, P. snjinum Bosc., P. longepedanculatum LeConte). Occasional or frequent in open woods, fields, along trails and roads, and in other disturbed places. Native.
- Paspalum urvillei Steudel, Common along roads, trails, and at edges of fields. Introduced,
- Paspalum vaginatum Swartz. Infrequent in marshes. Native.
- Phyllostachys anrea Riv. Local along streams and in ravines. Introduced.
- Poa annua L. Frequent in various disturbed places. Introduced.
- Poa autumnalis Muhl. ex Ell. Occasional in ravines.
- Poa chapmaniana Scribner. Occasional or frequent in lawns, vacant lots, and along roads and trails. Native.
- Schizachyrium scoparium (Michx.) Nees. Common in upland woods, well-drained open places and along roads and trails. Native.
- Schizachyrium tenerum Nees. Common in pine savannahs. Native.
- Secale cereale L. Infrequent escape from cultivation to roadsides. Introduced.
- Setaria geniculata (Lam.) Beauv. Infrequent in moist soil in various open areas. Native.
- Setaria glanca (L.) Beauv. Infrequent in disturbed places. Introduced.
- Setaria viridis (L.) Beauv. Infrequent along roads and in vacant lots and railroad yards. Introduced.
- Sorgbastrum avenacenm (Michx.) Nash. Infrequent in open dry mixed woods. Native.
- Sorghastrum elliottii (Mohr) Nash. Infrequent in open upland woods and along roads. Native.
- Sorgbum bicolor (L.) Moench. Occasional escape from cultivation to roadsides, railroad yards, and vacant lots. Introduced.
- Sorgbum balepeuse (L.) Persoon. Occasional or sometimes common in various disturbed places. Introduced.
- Sphenopholis filiformis (Chapman) Scribner, Occasional in open dry woods. Native,
- Sphenopholis obtusata (Michx.) Scribn, var. major (Torr.) Erdman. Frequent in moist ground along roads, trails and other open areas. Native.

Sphenopholis obtusata (Michx.) Scribn. var. obtusata. Frequent along roads and trails. Native.

Sporobolus clandestinus (Biehler) Hitche. Infrequent in open dry woods. Native.

Sporobolus junceus (Michx.) Kunth. Common in pine savannahs. Native.

Sporobolus macer (Trin.) Hitche. Infrequent or rare in sandy loam soil in open pine and pine-hardwood communities. Native.

Sporobolus indicus (L.) R. Br. Frequent in disturbed places. Introduced.

Stipa avenacea L. Infrequent in well-drained sandy loam soil in upland mixed woods. Native. Tridens ambiguns (Ell.) Schultes. Infrequent in moist open pinewoods. Native.

Tridens carolinianus (Steud.) Henrard. Infrequent in open sandy woods. Native.

Tridens chabmanii (Small) Chase. Infrequent in open upland mixed woods. Native.

Tridens flatus (L.) Hitche. Common along roads, trails and in open woods. Native.

Tridens strictus (Nutt.) Nash. Infrequent in open usually moist ground. Native.

Triplasis americana Beauv. Infrequent in dry sandy places. Native.

Triplasis purparea (Walter) Chapman. Frequent or infrequent in dry sandy places. Native. Triticum aesticum L. Occasional escape from cultivation to disturbed habitats. Introduced. Vulpia myuros (L.) C. C. Gmelin. Infrequent in vacant lots, railroad yards, along roads. Introduced.

Vulpia octoflora (Walter) Rydberg. Common along roads and in various other disturbed places. Native,

### HALORAGACEAE

Myriophyllum brasiliense Camb. Local in swamps, lakes and ponds. Introduced.

Proscrpinaca palustris L. Local in marshy places and shallow water. Native.

Proscriptinaea peetinata Lam. Local in shallow water of ponds, in ditches, and marshy areas. Native,

# HAMAMELIDACEAE

Hamamelis virginiana L. Frequent in mixed woods and ravines. Native. Liquidambar styraciflua L. Frequent in moist ravines, low woods. Native.

## HIPPOCASTANACEAE

Aesculus pavia L. Frequent in mesic woods. Native.

### HYDROPHYLLACEAE

Hydrolea quadrivalvis Walter. Locally abundant in shallow ponds and pools. Native. Hydrolea uniflora Raf. Locally abundant in shallow ponds. Native.

### HYPERICACEAE

Ascyrum bypericoides L. Frequent in open pine and hardwood forests. Native.

Ascyrum stans Michx. Occasional in open pine and mixed woods. Native.

Hypericum denticulatum Walt. Infrequent in low pine-flatwoods. Native.

Hypericum drummondii (Grev. & Hooker) T. & G. Frequent along roads and in dryish open woods and fields. Native.

Hypericum gentianoides (L.) BSP. Frequent along roadways, trails and at edges of fields. Native.

Hypericum galioides Lam. Frequent along streams, wet depressions, at the edges of swamps, and in low pinewoods. Native.

Hypericum mutilum L. Frequent in open wet places around swamps, bogs, ditches, and ponds. Native.

Hypericum nudiflorum Michx. ex Willd. Infrequent or rare along woodland streams. Native. Hypericum panetatum Lam. Infrequent in woods and fields. Native.

Hypericum setosum L. Occasional in low pine-flatwoods. Native,

Hypericum tubulosum Walter. Frequent at the edges of swamps and in moist woods. Native.

Hypericum virginicum L. Frequent around swamps, marshy areas, and ponds. Native,

Hypericum walteri Gmelin. Frequent in openings in low moist woods. Native.

# ILLICIACEAE

Illicium floridanum Ellis. Frequent understory shrub in ravines and on floodplains. Native.

### IRIDACEAE

Sisyrinchium augustifolium Miller. Infrequent in moist open woodlands. Native. Sisyrinchium rosulatum Michx. Occasional in lawns and along roads. Introduced.

## JUGLANDACEAE

Carya aquatica (Michx. f.) Nutt. Occasional in swamp forests. Native.

Carya glabra (Miller) Sweet. Occasional in well-drained woods. Native.

Carya illinoensis (Wang.) K. Koch. Frequent in fields, pastures, and at old homesites where planted.

Carya pallida (Ashe) Engler & Graebner. Frequent in well-drained mixed woods. Native. Carya tomentosa Nutt. Frequent in well-drained mixed woods. Native.

## JUNCACEAE

Juncus acuminatus Michx. Infrequent in open wet ditches and wet depressions. Native,

Juncus biflorus Ell. Frequent in open moist places. Native.

Juncus brachycarpus Engelm. Common locally in open moist ground. Native.

Juncus coriaceus Mackenzie. Common in ditches, wet depressions, and about ponds. Native.

Juncus debilis Gray. Infrequent and local in open wet ground. Native.

Juncus dichotomus Ell. Common in open dryish or moist places. Native.

Juncus diffusissimus Buckley. Frequent in usually open wet places about streams, ponds, and in ditches. Native.

Juncus effusus L. Common in wet depressions, ditches, and around ponds. Native.

Juncus elliottii Chapman. Frequent in open wet areas. Native.

Juncus gymnocarpus Coville. Infrequent and local on the borders of lakes. Native.

Juncus marginatus Rostk. Frequent in open moist places. Native.

Juneus polycephalus Michx. Frequent in wet soil in ditches, depressions, and in shallow water in ponds. Native.

Juncus repears Michx. Common at edges of ponds and in wet low places, frequently submerged in ponds. Native.

Juncus scirpoides Lam. Frequent in moist open places. Native.

Juncus tennis Willd. Frequent in moist or dryish soils in openings, Native.

Juncus trigonocarpus Steudel. Frequent in mud or shallow water, ponds and ditches. Native. Juncus validus Coville. Infrequent or locally frequent in open wet places. Native.

Luzula bulbosa (Wood) Rydberg. Infrequent in open upland woods. Native.

### LABIATAE

Collinsonia canadensis L. Locally frequent in ravines. Native,

Collinsonia serotina Walt. Rare in deciduous woods along streams. Native.

Glechoma bederacea L. Infrequent in open bottom land and woods. Introduced.

Hedeoma bispidum Pursh. Frequent along roads and in pastures. Native.

Hyptis alata (Raf.) Shinners. Common in moist ground along roads and in marshy places. Native.

Hyptis mutabilis (A. Rich.) Brig, Abundant locally in open woods along Leaf River, Introduced.

Lamium amplexicanle L. Frequent along roads and in pastures and lawns. Introduced.

Lamium purpureum L. Infrequent in lawns and pastures. Introduced.

Lycopus rubellus Moench. Frequent in swamps, marshy ground, ditches, and at edges of ponds. Native.

Lycopus virginicus L. Infrequent in low moist woods and around swamps. Native.

Monarda punctata L. Local in dry sandy soil at borders of mixed woods. Native.

Perilla frutescens (L.) Britton. Locally numerous in open disturbed woodlands and pastures. Introduced.

Physostegia virginiana (L.) Bentham. Infrequent in low areas along roads. Introduced.

Prunella vulgaris L. Infrequent along roads, in clearings, fields, and pastures. Native.

Pycnanthemum albescens T. & G. Frequent or infrequent in pinelands and mixed pinehardwoods. Native.

Pycnanthemum tenuifolium Schrader. Occasional in open low places. Native,

Salvia azurea Lam. Occasional in open upland woods. Native.

Salvia lyrata L. Frequent in lawns and along roads. Native.

Scutellaria elliptica Muhl. Infrequent in dry mixed woods. Native.

Scutellaria integrifolia L. Frequent or infrequent about lakes and ponds, in ditches, and open low ground. Native.

Scutellaria lateriflora L. Infrequent or rare in low moist woods. Native,

Scutellaria ovata Hill var. bracteata (Benth.) Blake, Rare in open bottom land woods. Native.

Stachys floridana Shuttlew. Abundant locally in lawns and along open streams. Introduced. Stacbys tennifolia Willd. Infrequent or rare in bottom land woods. Native.

Tencrium canadense L. Infrequent in bottom land woods. Native.

Trichostema dichotomum L. Frequent in open dry places. Native.

Tricbostema setaceum Houttuyn, Frequent in dry open places. Native.

#### LAURACEAE

Persea borbonia (L.) Spreng. Frequent in ravines, low woods, and borders of swamps. Native. Sassafras albidum (Nutt.) Nees. Frequent in open upland woods, slopes of ravines, old fields, and wood borders. Native.

# LEGUMINOSAE

Albizia julibrissin Durazzini. Frequent escape from cultivation to roadsides and other disturbed habitats. Introduced.

Amorpha fruticosa L. Infrequent along river banks and in open low bottom land woods. Native.

Amphicarpa bracteata (L.) Fern. Infrequent in open upland mixed woods. Native.

Abios americana Medicus. Infrequent in low moist woods or thickets. Native.

Arachis bypogaea L. Infrequent escape from cultivated to waste areas. Introduced.

Astragalus distortus T. & G. Rare in dry open pinewoods. Native.

Baptisia leucantha T. & G. Occasional at wood borders and in open woods. Native.

Cassia fasciculata Michx. Frequent along roads, trails and around fields. Native.

Cassia nictitans L. Frequent along roads, trails, and about fields. Native,

Cassia obtusifolia L. A common weed of cultivated fields. Native,

Cassia occidentalis L. Frequent in cultivated fields. Introduced.

Centrosema virginianum (L.) Bentham. Frequent in upland mixed woods. Native.

Cercis canadensis L. Frequent in mixed woods and ravines. Native. Clitoria mariana L. Frequent in open well-drained deciduous woods. Native.

Crotalaria angulata Miller. Frequent in dry open woods and open sandy places. Native.

Crotalaria sagittalis L. Infrequent in open dry woods. Native.

Crotalaria spectabilis Roth, Infrequent along roads and in fields. Introduced.

Desmodium ciliare (Muhl. ex Willd.) DC. Frequent along wood borders, roads, and edges of fields. Native.

Desmodium glabellum (Michx.) DC. Frequent in open areas such as fields, borders of woods, and along trails. Native.

Desmodium glutinosum (Muhl. ex Willd.) Wood. Infrequent in ravines. Native.

Desmodium lacvigatum (Nutt.) DC. Scattered in open upland woods. Native.

Desmodium lineatum DC. Infrequent in dry open mixed woods. Native.

Desmodium undifforum (L.) DC. Infrequent in ravines. Native.

Desmodium obtusum (Muhl. ex Willd.) DC. Frequent in open mixed woods and along woods and fields. Native.

Desmodium paniculatum (L) DC. Frequent in fields and open dryish woods. Native.

Desmodium perplexum Schubert. Infrequent in open mixed woods and at borders of fields. Native.

Desmodium rotundifolium DC. Frequent or occasional in open mixed woods. Native.

Desmodium strictum (Pursh) DC. Infrequent in wooded sandhills. Native.

Desmodium tortuosum (Swartz) DC. Abundant locally in fallow fields. Introduced.

Desmodium viridifforum (L.) DC. Occasional or frequent in well-drained open mixed woods. Native.

Erythrina herbacea L. Frequent in upland mixed woods. Native.

Galactia macreei M. A. Curtis. Infrequent in mixed woods, new clearings, and thickets. Native.

Galactia regularis (L.) BSP. Occasional in wooded sandhills. Native.

Galactia volubilis (L.) Britton. Frequent along wood borders, in open woods, and thickets. Native.

Glycine max (L.) Merrill. An occasional escape from cultivation to roadsides. Introduced, Latbyrus birsutus L. Infrequent along roads. Introduced.

- Lespedeza capitata Michx. Frequent in open pinewoods, occasional in dryish mixed woods and at edges of fields. Native,
- Lespedeza cuneata (Dumont) G. Don. Infrequent or frequent along roads. Introduced.
- Lespedeza hirta (L.) Hornemann. Frequent in dry open woods. Native.
- Lespedeza x nuttallii Darl. Infrequent or rare on roadsides. Native,
- Lespedeza procumbens Michx. Infrequent in open woods. Native,
- Leveleza repens (L.) Barton. Frequent or infrequent in dry upland woods and along roads and trails. Native.

Lespedeza striata (Thunb.) H. & A. Locally abundant in disturbed places. Introduced.

- Leybedeza stuevei Nutt. Infrequent in open upland woods. Native.
- Lespedeza ciolacea (L.) Persoon. Infrequent in openings of upland woods. Native,
- Lespedeza virginica (L.) Britton. Frequent at the borders of fields, along roads and trails. Native.
- Lubinus villosus Willd, Local in dry open woods. Native,
- Petalostemum carolinianum (Lam.) Sprague. Frequent in well-drained upland woods, principally in sandhills. Narive,
- Phaseolus polystachios (L.) BSP. Infrequent in ravines, Native,
- Pueraria lobata (Willd.) Ohwi. Abundant locally along highways. Introduced.
- Rhynchosia hitcheria Burkhart. Infrequent in deep, well-drained sand. Native.
- Rhynchosia reniformis DC. Frequent in dry open woods. Native.
- Rhynchosia tomentosa (L.) H. & A. Infrequent in open dry woods. Native,
- Schrankia microphylla (Solander ex Smith) MacBride. Frequent in dry open mixed woods. Narive
- Sesbania punicea (Cav.) Benth. Rare on river banks. Introduced.
- Strobbostyles belvola (L.) Ell. Occasional in clearings and dry open woods. Native,
- Stropbostyles umbellata (Muhl. ex Willd.) Britt. Infrequent in upland mixed woods and clearings. Native.
- Stylosanthes biflora (L.) BSP. Frequent in disturbed woodland. Native.
- Tephrosia florida (Dietrich) C. F. Wood. Frequent in open dryish pine and mixed woods. Native.
- Tephrosia spicata (Walter) T. & G. Infrequent in open woods. Native.
- Tepbrosia virginiana (L.) Pers, Frequent in open pine and mixed woodland. Native,
- Trifolium arvense 1. Abundant locally in open disturbed areas. Introduced.
- Trifolium campestre Schreber. Frequent along roads and in lawns and pastures. Introduced.
- Trifolium Jubium Sibthorp, Frequent in disturbed places. Introduced.
- Trifolium incarnatum L. Infrequent on roadsides. Introduced.
- Trifolium repens L. Local in fields and pastures. Introduced.
- Trifolium vesiculosum Savi. Infrequent or rare along roads, Introduced.
- Vicia angustifolia Reichard. Common locally along roads and at borders of fields. Introduced. Vicia caroliniana Walter. Infrequent at borders of upland mixed woods. Native.
- Vicia dasycarpa Tenore, Occasional along roads, Introduced,
- Vicia tetrasperma (L.) Moench. Local along roads. Introduced.
- Wisteria frutescens (L.) Poiret. Infrequent at edges of swamps. Native,
- Wisteria sinensis (Sims) Sweet. Rare along roads. Introduced.

# LEMNACEAE

Lemna valdiviana Phillipi. Frequent or infrequent in swamps and ponds. Native. Spirodela oligorhiza (Kurtz) Hegelm. Frequent or infrequent in swamps and ponds. Native. Spirodela polybiza (L.) Schleid. Frequent or infrequent in lakes and swamps. Native. Wolfiella floridana (J. D. Smith) Thompson. Locally numerous in swamps. Native,

### LENTIBULARIACEAE

Utricularia biflora Lam. Locally abundant or occasional in shallow water or marshy places. Native.

### LILIACEAE

Aletris aurea Walter, Occasional in moist pinelands, Native, Aletris farmosa L. Occasional in pinelands. Native,

Allium canadense L. Frequent along roads. Native.

Alljum canadense var. mobilense (Regel) Ownbey. Common along roads. Native.

Chamaelirium luteum (L.) Gray, Occasional in ravines. Native.

Hemerocallis fulua L. Infrequent at old homesites, Introduced.

Lilium michauxii Poir. Occasional on upper slopes of ravines. Native.

Medeola virginiana L. Frequent in ravines. Native.

Melanthium virginicum L. Infrequent or frequent in wet grass-sedge communities. Native. Nathocorrhum hirdry (L.) Britt, Common on roadsides, in lawns, and at old homesites.

Nothoscordum biralre (L.) Britt. Common on roadsides, in lawns, and at old nomesites. Native.

Smilax bona-nox L. Occasional in thickets, upland woods, and on floodplains. Native.

Smilav ecirrhata (Engelm.) Watson var. hngeri (Small) Ahles. Occasional in ravines. Native. Smilav glanca Walter. Frequent in a variety of habitats. Native.

Smilax bisbida Muhl, Infrequent in bottom land woods, Native,

Smilav laurifolia L. Frequent in alluvial woods, around swamps and lakes, and various other habitats. Native.

Smilax pulterulenta Michx, Infrequent in ravines, Native,

Smilay pumila Walter. Frequent in dry open mixed and deciduous woodland. Native,

Smilax rotundifolia L. Frequent in moist thickets, deciduous woods, along fence rows, and at wood borders. Native,

Smilax smallii Morong. Frequent or infrequent in mixed moist woods and along streams. Native.

Smilay walteri Pursh. Occasional in bays and marshy places.

Trillium cuncatum Raf. Infrequent to locally abundant in ravines and low rich woods. Native.

Uvularia perfoliata L. Frequent in ravines. Native.

Uvularia sessilifolia L. Frequent in ravines. Native.

Yucca smalliana Fernald. Infrequent in dry, sandy loam soil in dryish open places. Native.

# LINACEAE

Linum medium (Planchon) Britt. Frequent in open places about fields and along roads and trails. Native.

Linum striatum Walter. Infrequent in low open places, ditches, and borders of boggy areas. Native.

## LOGANIACEAE

Gelsemium sembervirens (L.) Aiton f. Frequent in open areas in woods. Native.

Gelseminm rankinii Small. Scattered and not frequent in open woods and along trails. Native.

Spigelia marilandica L. Infrequent or locally numerous on slopes of ravines and at edge of low mixed woods. Native.

### LYCOPODIACEAE

Lycopodium alopecuroides L. Occasional in wet ditches. Native.

### LYTHRACEAE

Rotala ramosior (L.) Koehne. Infrequent around lakes and in wet depressions. Native.

# MAGNOLIACEAE

Liriodendron tulipifera L. Frequent in ravines and alluvial woods. Native.

Magnolia acuminata L. Frequent or infrequent in ravines. Native.

Magnolia grandiflora L. Common in ravines, occasional in low rich woods. Native.

Magnolia macrophylla Michx. Common in ravines. Native.

Magnolia pyramidata Bartram ex Pursh. Frequent in ravines. Native.

Magnolia virginiana L. Frequent in wet low areas of ravines, bays, occasional along streams. Native.

### MALVACEAE

Callirboe paparer (Cav.) A. Gray. Frequent but local along roads. Native. Hibisres acultarias Walter. Frequent along roads and at edges of low pinewoods. Native. Modiola caroliniana (L.) G. Don. Infrequent or rare in open ground near dwellings and along roads. Native.

Sida rhombifolia L. Rather common along roads and at edges of fields. Introduced, Sida spinosa L. Frequent along roads and around fields. Native,

# MAYACACEAE

Mayaea aubletii Michx. Abundant locally in shallow water and mud. Native.

### MELASTOMATACEAE

Rbevia alifanus Walter. Frequent in open pine-flatwoods and openings in upland mixed woods. Native,

Rbevia mariana L. Locally numerous ditches, open pine-flatwoods, and borders of ponds. Native.

Rhevia nashii Small. Infrequent in wet ditches and edges of marshy areas. Native,

Rbevia virginica L. Local in ditches, moist pinewoods, and borders of ponds. Native.

# MELIACEAE

Melia azedarach L. Naturalized in openings, wood borders and roadsides. Introduced.

# MENISPERMACFAE

Calycocarpum Iyoni (Pursh) Gray. Infrequent or rare in bottom land woods, Native, Cocculus carolinus (L.) DC. Frequent in disturbed woods and along roads and trails, Native,

# MORACEAE

Morus rubra L. Frequent in ravines, borders of swamps, and low woods. Native.

# MYRICACEAE

Myrica cerifera L. Common in flatwoods, savannahs, and edges of ponds and streams. Native, Myrica beterophylla Raf. Local in pine-flatwoods and bays. Native,

## NYMPHAEACEAE

Brasenia schreberi J. F. Gmelin. Common in some ponds and lakes. Native.

Cabomba caroliniana Gray. Abundant locally in swamps. Native.

Nupbar luteum (L.) Sibihorp & Smith ssp. macrophyllum (Small) E. O. Beal. Common locally in open swamps and lakes. Native,

# NYSSACEAF

Nyssa aquatica L. Abundant in swamps. Native.

*Nyssa biflora* Walter. Common in bays, various swamps and borders of streams. Native. *Nyssa sylvatica* Marshall. Common in moist or dry woods. Native.

## OLEACEAE

Chionanthus virginicus L. Occasional on the upper slopes of ravines and in upland mixed woods. Native,

Forestiera acuminata (Michx.) Poir. Occasional in low wet woods, borders of streams, and edges of swamps. Native.

Fraxinus americana L. Occasional in ravines and other mesic woods. Native,

Fraxinus caroliniana Miller. Infrequent or rare in swamps, Native.

Fraxinus penusylvanica Marsh. Occasional in low mesic woods. Native,

Ligustrum japonicum Thunberg. Infrequent in open ravines. Introduced.

Ligustrum sinense Lour. Frequent in fence rows and along wood borders. Introduced.

Osmanthus americana (L.) Gray. Frequent in moist or dry mixed woods. Native.

### ONAGRACEAE

Gaura biennis L. Occasional along roads and trails. Native.

Gaura filipes Spach. Occasional in open dryish woods. Native.

Ludwigia alternifolia 1. Frequent in wet ditches, low moist woods, and borders of ponds. Native.

Ludwigia decurrens Walter. Frequent in open moist woods, borders of ponds, and in marshy places. Native.

Ludwigia glandulosa Walter. Occasional in low woods and marshy places. Native.

Ludwigia leptocarpa (Nutt.) Hara. Occasional around ponds, marshy areas, and in wet ditches. Native.

Ludwigia linearis Walter, Frequent in low moist open areas and around ponds. Native, Ludwigia palustris (L.) Ell. Abundant locally in shallow water or mud. Native,

Ludwigia pilosa Walter. Locally abundant in shallow water in open ground. Native.

Ocnothera biennis L. Infrequent or locally numerous along roads and in old fields. Native. Ocnothera fruticosa L. Common in cultivated and fallow fields and along roads. Native.

### **OPHIOGLOSSACEAE**

Botrychium biternatum (Sav.) Underwood. Occasional in ravines and bottom land forests. Native.

Botrychium virginianum (L.) Swartz. Occasional in low woods and ravines. Native.

Ophioglossum crotalophoroides Walter. Infrequent or rare in sandy loam soil along roads. Native.

### ORCHIDACEAE

Calopogon pallidus Chapman. Infrequent in wet ditches and moist grass-sedge communities.

Corallorbiza odontorbiza (Willd.) Nutt. Infrequent or rare in ravines. Native. Corallorbiza wisteriana Conrad. Infrequent or rare in ravines. Native.

Habenaria ciliaris (L.) R. Br. Infrequent in open pine-flatwoods. Native.

Habenaria citiaris (L.) R. Br. Intrequent in open pine-natwoods. I terre Habenaria refens Nutt. Occasional in ponds and open swamps. Native.

Listera australis Lindley. Infrequent in ravines. Native.

Malaxis unifolia Michx. Rare in ravines. Native.

Matavis anijura indexi. Kati in furnise function or rare in ravines. Native, *Spiranthes cenuma* (Walter) Mohr, Infrequent or rare in ravines. Native, *Spiranthes cenuma* (L.) Richard, Occasional at borders of swamps and lakes. Native, *Spiranthes ternalis* Engelm, & Gray, Occasional in moist woods and along ponds. Native, *Spiranthes ternalis* Engelm, & Gray, Occasional in moist open places, Native.

Tibularia discolor (Pursh) Nutt. Rare in ravines. Native.

### OROBANCHACEAE

Epifagus virginiana (L.) Barton. Infrequent or frequent in ravines. Native.

### OSMUNDACEAE

Osmunila cinnamomea L. Frequent in bays, about swamps, and wet areas of ravines. Native, Osmunila regalis L. var. spectabilis (Willd.) Gray. Locally numerous in open wet areas of ravines, low moist woods, and around swamps. Native.

### OXALIDACEAE

Ovalis dillenii Jacquin. Frequent in old fields, gardens, and along roads and trails. Native. Ovalis pricede Small. Infrequent or rare at edge of mixed woods. Native.

 $O_{\Lambda allis}$  rubra St. Hil. An escape from cultivation and established locally in disturbed places. Introduced.

Oxalis stricta L. Frequent along roads and in lawns and fields. Native. Oxalis violacea L. Infrequent in disturbed mesic woods and on road banks. Native.

### PALMAE

Rbapidopbyllum bystrix (Fraser) H. Wendl. Rare along streams in ravines. Native, Sabal minor (Jacq.) Pers. Occasional in ravines and bottom land hardwoods. Native.

## PAPAVERACEAE

Sanguinaria canadensis L. Occasional in beech-magnolia forest in ravines. Native.

### PASSIFLORACEAE

Passiflora incarnata L. Frequent along roads, trails and fence rows and in old fields. Native. Passiflora latea L. Infrequent in moist woods. Native.

#### PHRYMACEAE

Pbryma leptostacbya L. Frequent in beech-magnolia forest in ravines. Native.

# PHYTOLACCACEAE

Phytolacca americana L. Common on river floodplain, occasional or frequent in a variety of disturbed places. Native.

### PINACEAE

Pinns echinata Miller. Frequent or common in well-drained sandy loam soils in upland areas. Native.

Pinus glabra Walter. Frequent in moist woods on river terraces and in ravines. Native.

Pinns palustris Miller. Common in savannahs, flatwoods; occasional in well-drained woods. Native.

# PLANTAGINACEAE

Plantago aristata Michx. Frequent along roads and trails and other disturbed places. Native, Plantago bybrida Bart. Local in moist open ground. Native.

Plantago lanceolata L. Frequent in various disturbed places such as fields, open woods, and along roads and trails. Native,

Plantago rugelii Dene. Infrequent in open low woods. Native,

Plantago virginica L. Common along roads and trails, Native.

# POLEMONIACEAE

Phlox phlosa L. Frequent in clearings, open mixed woods, and along roads. Native, Phlox phlosa subsp. detonsa (Gray) Wherry. Occasional in clearings. Native,

## POLYGALACEAE

Polygala cruciala L. Infrequent or rare in wet open flatwoods. Native.

Polygala grandiflora Walter. Occasional in upland mixed woods. Native.

Polygala incarnata L. Occasional in open pinewoods. Native.

Polygala mariana Miller. Infrequent in open wet places. Native.

Polygala nana (Michx.) DC. Frequent in moist sandy woods. Native,

# POLYGONACEAE

- Brunnichia ovata (Walter) Shinners. Locally abundant along rivers, creeks, and about swamps. Native.
- Persicaria bydropiperoides (Michx.) Small. Frequent about ponds, lakes, swamps, and in ditches. Native.

Persicaria pensylvanica (L.) Small. Infrequent in moist open ground. Native.

Persicaria punctata (EIL) Small. Abundant locally or scattered in open wet places or shallow water. Native.

Polygonum convolvulus L. Infrequent in open dryish woods. Introduced.

Rumey crispus L. Common in disturbed areas. Introduced.

Rumex bastatulus Baldwin ex Ell. Frequent along roads, trails, and along fields and wood borders. Native.

Rumex pulcher L. Infrequent in open moist woods and along roads. Introduced.

Torara virginiana (L.) Raf. Frequent in low woods and moist ravines. Native,

### POLYPODIACEAE

Asplenium platyneuron (L.) Oakes. Frequent on upper slopes of ravines, in dryish woods, and along roads, fence rows, and wood borders. Native.

Albyrium asplemoides (Michx.) A. A. Eaton. Frequent in ravines and low wet places. Native.

Lorinseria arcolata (L.) Presl. Frequent in various moist or wet places. Native.

Ouoclea sensibilis L. Frequent in moist woods, borders of ponds and swamps, and in ditches. Native.

Polypodium polypodioides (L.) Watt. Localized on trunks and branches of deciduous trees. Native,

Polystichum acrostichoides (Michx.) Schott, Frequent in ravines, Native,

Pteridium aquilinum (L.) Kuhn. Common in well-drained soils along roads, trails, and wood borders. Native,

Thelypteris deutata (Forsk.) E. St. John. Infrequent in ravines. Native.

Thelypteris bevagonoptera (Michx.) Weatherby, Common in ravines, Native,

Thelypteris normalis (C. Chr.) Moxley. Common along streams in ravines and in ditches. Native,

Thelypteris palastris Schott. Common in wet ditches and other wet or seasonally inundated ground. Native.

Thelypteris torresiana (Gaudich.) Alston. Infrequent or rare along woodland streams. Native. Woodwardia virginica (L.) Smith. Frequent in low moist places. Native.

### PORTULACACEAE

Portulaca oleracea L. Infrequent in open sandy soil. Introduced.

## POTAMOGETONACEAE

Potamogeton berchtoldii Fieber. Infrequent in lakes. Native. Potamogeton diversifolius Raf. Infrequent in lakes and swamps. Native.

### PRIMULACEAE

Centunculus minimus L, Very local in upland wet depressions. Native.

## RANUNCULACEAE

Clematis virginiana L. Infrequent in open low woods and along streams. Native,

Delphinium carolinianum Walter. Infrequent in open dryish places. Native.

Ranunculus abortivus L. Frequent in lawns, along roads and trails, and various other places. Native.

Ranunculus fascicularis Muhl. Frequent in open sandy loam soils. Native.

Ranunculus parviflorus L. Infrequent in disturbed places. Introduced.

Ranunculus pusillus Poir. Frequent in seasonally inundated pools. Native.

Thalictrum polygamum Muhl. Infrequent or rare in low rich woods along Leaf River. Native.

Xanthorbiza simplicissima Marshall. Rare in sandy soil along Weldy Creek. Native.

### RHAMNACEAE

Berchemia scandeus (Hill) K. Koch. Frequent in mesic woods. Native. Ceanothus americanus L. Frequent in upland woods. Native. Rhamnus caroliniana Walter. Occasional in ravines and mixed hardwoods. Native.

### ROSACEAE

Agrimonia microcarpa Wallroth. Infrequent in upland mixed woods. Native.

Agrimonia pubescens Wallroth. Infrequent in upland mixed woods. Native.

Amelanchier arborea (Michx. f.) Fern. Frequent in ravines. Native.

Cratacgus alma Beadle. Frequent in upland woods. Native.

Cratacgus marshallii Eggl. Frequent in deciduous and mixed woods. Native.

Crataegus opaca Hook. & Arn. Infrequent in wet open depressions. Native.

Duchesnea indica (Andrz.) Focke, Infrequent or common in areas near dwellings and open sandy places. Introduced.

Fragaria virginiana Duchn. Infrequent or rare in open low woods. Native.

Prunus augustifolia Marshall, Common in open dry woods. Native.

Prunus caroliniana Ait. Frequent in low woods and ravines. Native.

Prunns mexicana S. Wats. Rare in dry open woods. Native.

Prunus persica (L.) Barsch. Rare escape to roadsides. Introduced.

Prunus scrotina Ehrhart. Frequent in various woodland habitats. Native.

Prunus umbellata Ell. Frequent or infrequent in well-drained open mixed woods. Native.

Pyrus angustifolia Ait. Infrequent in mixed woods and at wood borders. Native.

Pyrus arbutifolia (L.) L. f. Locally numerous in bays and marshy places. Native.

Rosa bracteata Wendland. Locally abundant along railroad. Introduced.

Rosa carolina L. Infrequent in open upland woods. Native.

Rubus argutus Link. Frequent at borders of low woods, edges of fields, and in open woods. Native.

Rubus betulifolius Small. Frequent in moist woods. Native.

Rubus flagellaris Willd. Infrequent or rare in upland hardwoods. Native.

Rubus trivialis Michx. Common along railroads, trails, and in a variety of disturbed habitats. Native.

### RUBIACEAE

Cephalanthus occidentalis L. Frequent about lakes and swamps, and in shallow water. Native,

Diodia teres Walter. Frequent in dry, open areas. Native.

Diodia virginiana L. Frequent around ponds and other wet places. Native,

Galium aparine L. Common in open disturbed places. Native.

Galium circaezans Michx. Occasional in ravines. Native.

Galium pilosum Ait. Occasional in mixed woods and ravines. Native,

Galium tinctorium L. Infrequent in mesic woods, Native.

Galium uniflorum Michx. Infrequent in ravines. Native,

Hedyofis boseii DC. Occasional in low moist areas, Native.

Hedyotis corymbosa (L.) Lam. Infrequent in open moist ground. Introduced.

Hedyotis uniflora (L.) Lam. Infrequent in moist sandy places. Native.

Honstonia procumbens (J.F. Gmelin) Standley. Occasional in sandy loam in pine and mixed woods. Native.

Houstonia purpurea L. Frequent in mesic woods. Native.

Houstonia pusilla Schoepf. Frequent in open sandy loam soils. Native.

Mitchella repens L. Common in ravines. Native.

Richardia scabra L. Common in cultivated and fallow fields. Introduced.

### RUTACEAE

Citrus trifoliata L. Rare along the Leaf River. Introduced. Ptelea trifoliata L. Infrequent along the Leaf River. Native.

### SALICACEAE

Populus deltoides Marshall. Frequent along Leaf River, rarely in wet soil at sand and gravel pits. Native.

Saliv nigra Marshall. Common along Leaf River and about lakes and swamps. Native,

### SAPOTACEAE

Bumelia lycioides (L.) Pers. Rare long Leaf River. Native.

# SAURURACEAE

Sanrurus cernnus L. Common around lakes and swamps. Native.

## SAXIFRAGACEAE

Decumaria barbara L. Frequent in ravines. Native.

Hydrangea quercifolia Bartr. Frequent in ravines. Native.

Hea virginica L. Frequent in shallow water or wet soil about swamps, ponds, and bays. Native.

## SCHISANDRACEAE

Schisandra glabra (Brickell) Rehder. Rare in ravines. Native.

### SCHIZAEACEAE

Lygodium japonicum (Thunb.) Swartz. Occasional in disturbed woods in low areas. Introduced.

## SCROPHULARIACEAE

Agalinis setacra (J.F. Gmelin) Raf. Frequent in open dry woods. Native.

Agalinis tennifolia (Vahl) Raf. Occasional in old fields and clearings. Native,

Aureolaria dispersa (Small) Pennell. Occasional along roads and in open upland woods. Native.

Aureolaria pectinata (Nutt.) Pennell. Infrequent in dry open woods. Native.

Anreolaria virginica (L.) Pennell. Infrequent in mixed woods. Native.

Buchnera americana L. Frequent in pine-flatwoods. Native.

Buchnera floridana Gandoger. Occasional in pine-flatwoods. Native.

Gratiola pilosa Michx, Infrequent in pine-flatwoods, Native,

Gratiola virginiana L. Infrequent in wet open places. Native,

Linaria canadensis (L.) Dumont. Common in a variety of open disturbed habitats. Native. Lindernia anagallidea (Michx.) Pennell. Local in open wet areas. Native. Lindernia dubia (L.) Pennell. Infrequent along streams. Native.

Mecardonia acuminata (Walter) Small. Occasional in moist open places. Native,

Micranthemum umbrosum (Walter) Blake. Common in wet soil or shallow water. Native.

Mimulus alatus Ait. Infrequent around swamps and lakes. Native.

Pedicularis canadensis L. Local in moist open sandy loam soil. Native.

Penstemon australis Small. Frequent in various open mixed and pinewoods and clearings. Native.

Scoparia dulcis L. Infrequent in open sandy loam soils. Native,

Seymeria cassioides (Walter) Blake. Occasional in open upland woods. Native.

Seymeria pectinata Pursh. Occasional in upland mixed woods. Native,

Verbascum thapsus L. Rare at garbage dumps. Introduced.

Veronica arvensis L. Occasional in fields and lawns. Native.

Veronica peregrina L. Infrequent in moist open areas. Native.

### SELAGINELLACEAE

Selaginella apoda (L.) Spring, Infrequent in sand along streams. Native,

### SOLANACEAE

Datura stramonium L. Rare at garbage dumps. Introduced.

Lycopersicon esculentum Miller, Occasional in disturbed areas. Introduced,

Petunia x atkinsiana D. Don ex Loudon. Occasional escape from cultivation. Introduced.

Physalis angulata L. Frequent in cultivated ground. Native.

Physalis pubescens L. Infrequent in cultivated soil. Native.

Physalis virginiana Miller. Occasional in disturbed places. Native.

Solannm americanum Miller, Occasional in open deciduous woods and various waste places. Native

Solanum carolinense L, Occasional in a variety of disturbed habitats, Native,

Solanum nigrum L. Infrequent in fields and at wood borders. Native.

Solanum sisymbriifolium Lam. Rare in old fields. Introduced.

# **SPARGANIACEAE**

Sparganium americanum Nutt. Infrequent or frequent in shallow water of ponds and lakes. Native.

## STERCULIACEAE

Melochia corchorifolia L. Common in cultivated fields. Introduced.

# STYRACACEAE

Halesia diptera Ellis, Frequent in ravines. Native. Styrax americana Lam. Occasional in wet woods and around lakes and swamps, Native, Styrax grandifolia Ait. Frequent in ravines. Native,

### SYMPLOCACEAE

Symplocos tinctoria (L.) L'Her, Frequent in mixed woods. Native.

## TAXODIACEAE

Taxodium distichum (L.) Richard. Common in cypress-tupelo swamps. Native.

### THEACEAF

Stewartia malacodendron L. Infrequent in ravines. Native.

### TILIACEAE

Tilia caroliniana Miller, Frequent in ravines. Native,

### ULMACEAE

Celtis laevigata Willd. Occasional in alluvial woods. Native. Celtis tenuifolia Nutt. var. georgiana (Small) Fern. & Schubert. Occasional in open upland mixed woods. Native,

Planera aquatica (Walter) J. F. Gmelin. Occasional in shallow water or about lakes and swampy woods. Native.

Ulmus alata Michx, Frequent in mixed woods, Native,

Ulmus americana L. Occasional in low woods, Native.

Ulmus rubra Muhl. Infrequent or rare in ravines. Native.

# UMBELLIFERAE

Apium leptophyllum (Pers.) F. Mueller, Occasional in moist open areas, Native,

Centella asiatica (L.) Urban. Occasional in moist sandy loam or shallow water. Native.

Chaerophyllum tainturieri Hooker. Frequent along roads and about dwellings. Native.

Daucus carota L. Infrequent along roads. Introduced.

Eryngium prostratum Nutt. Infrequent in open wet places. Native.

Eryngium yuccifolium Michx. (Incl. E. synchaetum (Gray) Rose). Frequent in open pinewoods. Native.

Hydrocotyle umbellata L. Occasional in shallow water of ponds. Native.

Hydrocotyle verticillata Thunb. Infrequent in shallow water of lakes. Native.

Oxypolis filiformis (Walter) Britt. Infrequent in open wet areas. Native.

Oxypolis rigidior (L.) Raf. Infrequent in bays and marshy places. Native.

Ptilimnium capillacenm (Michx.) Raf. Occasional in ditches and other open wet soils. Native.

Sanicula canadensis L. Infrequent in mixed woods. Native.

Sanicula smallii Bicknell. Frequent or infrequent in ravines and low woods. Native.

Thaspium barbinode (Michx.) Nutt. Infrequent in ravines and low woods. Native.

Thushium trifoliatum (L.) Gray var. flavum Blake. Infrequent in mixed woods and ravines. Native.

Trepocarpus aethusae Nutt. Local along Leaf River. Native.

### URTICACEAE

Boebmeria cylindrica (L.) Swartz. Frequent in swamps, ditches, and around lakes and ponds. Native.

Laportea canadensis (L.) Weddell. Occasional and local in ravines and low woods. Native. Pilea pumila (L.) Gray. Occasional in ravines and low woods. Native,

### VALERIANACEAE

Valerianella radiata (L.) Dufr. Common along roads. Native,

### VERBENACEAE

Lantana camara L. Infrequent escape from cultivation or persisting around old homesites. Introduced.

Callicarpa americana L. Common the upper slopes of ravines and in upland woods. Native,

Verbena bonariensis L. Infrequent or rare along roads. Introduced.

Verbena brasiliensis Vellozo. Common in a variety of disturbed habitats. Introduced.

Verbena canadensis (L.) Britt. Infrequent in dryish woods. Native.

Verbena carnea Medicus. Infrequent in upland mixed woods. Native.

Verbena balei Small. Frequent along roads and trails. Native.

Verbena rigida Sprengel. Local in dry open places. Introduced.

Verbena tenuisecta Briquet. Common along roads and in other open sandy sites. Introduced. Verbena urticifolia L. Infrequent or rare in disturbed low woods. Native.

### VIOLACEAE

Viola esculenta Ell. Infrequent in moist pinewoods. Native.

Viola floridana Brainerd. Rather common in ravines and low woods. Native,

Viola palmata L. Occasional in ravines. Native.

Viola papilionacea Pursh. Infrequent in open disturbed areas. Native,

Viola pedata L. Occasional in upland mixed woods. Native.

- Viola primulifolia L. Frequent in moist sandy soils or muck about ponds, swamps, and in wet ditches. Native.
- Viola rafinesquii Greene. Frequent along roads and in fields. Native.

Viola triloba Schweinitz. Occasional in ravines and low woods. Native,

Viola walteri House, Common in ravines and other mesic woods. Native,

### VISCACEAE

Phoradendron scrotinum (Raf.) M. C. Johnston, Frequent on a variety of deciduous trees.

## VITACEAE

Ampelopsis arborea (L.) Koehne. Frequent about swamps, lakes, and various other wet areas. Native.

Ampelopsis cordata Michx. Infrequent and local along railroad. Native.

Parthenocissus quinquefolia (L.) Planchon, Common in various mesic woodland habitats. Native.

Vitis aestivalis Michx, var. argentifolia (Munson) Fern. (Incl. V. bicolor LeConte). Frequent along stream banks and in low woods. Native.

Vitis cincrea Engelm, ex Millardet. Occasional along streams and in low woods, Native,

Vitis rotundifolia Michx, Common in a variety of woodland habitats ranging from moist to dry. Native.

Vitis vulpina L. Infrequent in low woods and along streams. Native.

### XYRIDACEAE

Xyris caroliniana Walt, Infrequent in moist pine-flatwoods, Native,

Xyris difformis Chapm. Occasional at the borders of ponds and lakes. Native.

Xyris fimbriata Ell. Frequent in sand or mud about lakes and in wet ditches. Native,

Xyris iridifolia Chapman. Frequent at the borders of ponds and in wet ditches. Native.

Xyris jubical Richard. Locally abundant in moist or wet sand in open disturbed places. Native.

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